

IN THE CLAIMS

Cancel Claims 2-3.

B₂ Sub 4. (twice amended) The method according to Claim [22] 23, wherein said *Bacillus* strain is [a derivative of] *Bacillus* novo species PB92 or a derivative thereof.

B₃ 5. (twice amended) The method according to Claim [22] 23, wherein said *Bacillus* strain is an asporogenic alkalophilic *Bacillus* strain.

6. (twice amended) The method according to Claim [22] 23, wherein the gene encoding said native protease has been deleted by homologous or illegitimate recombination.

4 B 7. (twice amended) The method according to Claim [22] 23, wherein a plasmid comprises said DNA sequence.

(Cancel Claim 8.)

4 1/2 B Sub C2 9. (twice amended) The method according to Claim [8] 7, wherein said mutant high alkaline protease is [a mutant of a wild-type high alkaline protease having an amino acid sequence at least substantially similar to that of a] obtained from *Bacillus* novo species [PB₉₂] PB92 [protease or a biologically active fragment thereof].

new mutant?

10. (twice amended) The method according to Claim [22] 23, wherein at least one copy of said DNA sequence is integrated into the genome of said host.

5 B 12. (amended) A method of obtaining an alkalophilic *Bacillus* strain having a reduced extracellular alkaline protease level, said method comprising:

transforming an alkalophilic *Bacillus* strain with a cloning vector comprising [a gene coding for a high alkaline protease from which the coding region and optionally portions of] the 5' and the 3' [non-coding] flanking regions [have been deleted leaving a sequence of said gene capable of] of a gene coding for a high alkaline protease and wherein a sufficient amount of said flanking regions is present to provide for homologous recombination with an indigenous gene coding for a high alkaline protease whereby transformants are obtained;

B⁵ cancel.

growing said transformants under conditions whereby the replication function encoded by said vector is inactivated; and isolating transformants identified as having a reduced extracellular alkaline protease level.

Sub 29

B⁶

14. (amended) An alkalophilic *Bacillus* strain [capable of] producing a mutant high alkaline protease substantially free of expression product of an indigenous extracellular alkaline protease gene, wherein said strain [having] has been obtained [according to the method of] by transforming a mutant alkalophilic *Bacillus* strain having a reduced indigenous extracellular protease level obtained by the method according to Claim 12 or 13 [characterized as incapable of producing said expression product] with a plasmid expression vector comprising a mutant high alkaline protease gene.

15. (amended) The *Bacillus* strain according to Claim 14, wherein said mutant alkalophilic *Bacillus* strain is a [mutation] mutant of *Bacillus* novo species PB92 or a derivative thereof.

B⁷

17. (amended) A mutant high alkaline protease produced according to the method of Claim 23, and characterized as (1) substantially free from contamination with [a wild-type high] an indigenous extracellular alkaline protease, and (2) differing in at least one amino acid from [the] a wild-type high alkaline protease [produced according to the method of Claim 1].

Cancel Claim 18.

B⁸

19. (amended) A detergent composition [containing] comprising as an active ingredient [comprising] one or more high alkaline protease[s] prepared according to the method of Claim [16] 23.

Cancel Claims 20-22 and rewrite as new Claims 23-26.

B⁹

--23. A method for production of a mutated high alkaline protease substantially free of indigenous extracellular protease, said method comprising:

growing an alkalophilic *Bacillus* strain host having a reduced indigenous extracellular protease level as a result of

Sub. C 9
C 9
C 9
deletion of the gene for said indigenous extracellular protease transformed with an expression cassette providing for expression of a mutated high alkaline protease in said host, whereby said mutated high alkaline protease is produced.

24. A method for preparing a detergent composition, which comprises the step of combining a detergent composition with, as an active ingredient, one or more of a high alkaline protease prepared according to the method of Claim 23.

25. A method for processing laundry, which comprises the step of contacting said laundry with a detergent composition comprising as an active ingredient one or more of a high alkaline protease prepared according to the method of Claim 23.

26. A method for production of a mutated high alkaline protease substantially free of indigenous extracellular protease, said method comprising:

growing an asporogenous *Bacillus* strain host having a reduced indigenous extracellular protease level as a result of deletion of the gene for said indigenous extracellular protease transformed with an expression cassette providing for expression of a mutated high alkaline protease in said host, whereby said mutated high alkaline protease is produced.--.

REMARKS

The Invention

The claimed invention is directed to methods and compositions for preparation of mutant high alkaline proteases and mutant alkalophilic *Bacillus* strains which produce only the mutant high alkaline protease and not the corresponding native protease. Also claimed are a detergent composition comprising as an active ingredient one or more high alkaline proteases prepared according the claimed method and use of the high alkaline protease in a detergent composition or a laundry process.